

REMARKS

Claims 3 - 12 remain in this application. Claims 1 and 2 have been cancelled. Claims 3 and 7 - 9 have been amended. Reconsideration of this application in view of the amendments noted is respectfully requested.

With respect to the specification, the paragraph beginning on page 21, line 6 has been amended to correct a typographical error. Specifically, reference character "h" has been amended to read --h2--. h2 is the height of the insertion projection as introduced on page 20, lines 6 - 7 of the specification.

With respect to claim amendments, claim 7 has been amended to include the limitations: "assuming that the width in the pipe axial direction of the inner circumferential surface of the lock ring is t, the height of the lock ring is H, the width in the pipe axial direction of the bottom surface of the accommodating groove is T_0 , the inclination angle of the tapered surface of the accommodating groove with respect to the pipe axial center is θ_5 , the depth of the accommodating groove is V, the height of the projection is h2, and the dimension of the gap between the inner circumference of the socket and the outer periphery of the spigot is L, $(L+V) - (t - T_0)\tan\theta_5 - H < h2$ is satisfied." Support for this amendment is found in the specification on page 19, line 31 through page 20, line 9 and page 21, lines 6 - 13. Further, claim 7 has been rewritten in independent form to include the limitations of claim 1 from which it originally depended.

Claim 9 was objected to because of a grammatical error. Claim 9 has been amended to correct the grammatical error. Specifically, "pressing" has been changed to --presses--.

Claim 1 was rejected under 35 U.S.C. Section 102(b) as being anticipated by Nagao et al. (U.S. Patent No. 4,097,074). Claim 1 has been cancelled, thereby obviating the rejection.

Claims 1 - 2 and 7 were rejected under 35 U.S.C. Section 102(b) as being anticipated by Clifford (U.S. Patent No. 3,712,648). Applicant respectfully traverses this rejection.

Claims 1 and 2 have been cancelled.

With respect to amended claim 7, by satisfying a dimensional relation expressed by the claim, when the lock ring is accommodated in the accommodating groove with the tapered surfaces not facing each other, the tapered surface of the accommodating groove and the outer periphery other than the tapered surface of the lock ring contact and the lock ring is not able to be accommodated up to the bottom side of the accommodating groove. Thus, the lock ring protrudes inward in the radial direction from the accommodating groove, the spigot projection contacts the protruding portion when inserting the spigot to the socket, and the spigot is not able to be inserted into the socket.

Therefore, when inserting the lock ring in the accommodating groove, the tapered surface of the accommodating groove and the edge portion of the lock ring contact if they are arranged in the reverse direction as shown in FIG. 16 of the present application, and the lock ring cannot fully enter the accommodating groove. As a result, the spigot projection cannot pass the inside of the lock ring, and the spigot cannot be inserted to a predetermined position inside the socket. Thus, the misconnection can be reliably prevented (see page 21 of the present application).

On the other hand, Clifford does not teach the above-described dimensional relationship as recited in amended claim 7. In fact, according to Clifford, the width of groove 10 is too big compared to the width of a ring 12 as clearly illustrated in FIGS. 1 and 2. Under such circumstances, if the ring 12 is arranged in the reverse direction, the ring easily goes to the bottom of the groove 10, and the effect for preventing misconnection as in the present invention cannot be achieved.

For all of these reasons, Clifford does not teach the present invention as claimed in claim 7. Hence, applicant submits that claim 7 is patentable over Clifford. Applicant therefore respectfully requests that the Section 102(b) rejection of claim 7 as anticipated by Clifford be withdrawn.

Claims 3 – 6 and 8 – 12 were objected to as being dependent upon a rejected base claim, but were found allowable if rewritten in independent form including all of the

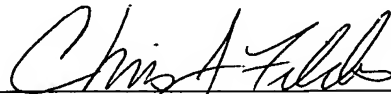
limitations of the base claim and any intervening claims. Claim 3 has been rewritten in independent form and has been amended to include the limitations of claims 1 and 2 from which it originally depended. Likewise, claim 8 has been rewritten in independent form and has been amended to include the limitations of claim 1 from which it originally depended. Therefore, claims 3 and 8 are in allowable form. Claims 4 - 6, depending from claim 3, and claims 9 - 12, depending directly or indirectly from claim 8, are also allowable.

This amendment and request for reconsideration is felt to be fully responsive to the comments and suggestions of the examiner and to place this application in condition for allowance. Favorable action is requested.

Respectfully submitted,

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A handwritten signature in cursive script, appearing to read "Chris J. Fildes", written over a horizontal line.

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